YANG ET AL. -- U.S. PATENT APPLICATION 09/398,897 Kindly amend claims 1 and 12, as follows: (Amended) A method for producing stable cell 1. lines of mammalian neural precursor cells in vitro, comprising the steps of: preparing a culture of neural precursor cells in a serum-free medium; culturing the neural precursor cells in the b) presence of a first mitogen, wherein said first mitogen is selected from the group consisting of aFGF, bFGF, EGF, TGF $\!\alpha$ and combinations thereof; introducing a c-myc construct into [contacting] the cells [with an agent capable of being taken up by the cells and capable of expressing a c-myc gene], wherein the c-myc construct is comprised of a c-myc cDNA fused with at least one element selected from the group consisting of DNA for a ligand binding domain for an estrogen receptor, an androgen receptor, a progesterone receptor, a glucocorticoid receptor, a thyroid hormone receptor, a retinoid receptor, and an ecdysone receptor; and further culturing the cells in a medium containing the first mitogen and a second mitogen, - 2 -

YANG ET AL. -- U.S. PATENT APPLICATION 09/398,897 wherein said second mitogen is selected from the group consisting of aFGF, bFGF, EGF, TGF α , serum and combinations thereof, with the proviso that the second mitogen is other than the first mitogen, and wherein said medium containing the first mitogen and the second mitogen further comprises a myc-activating chemical selected from the group consisting of β -estradiol, RU38486, dexamethasone, thyroid hormones, retinoids, and ecdysone. (Amended) A method for producing stable clonal cell lines of mammalian neural precursor cells in vitro, comprising the steps of: a) preparing a culture of neural precursor cells in a serum-free medium; culturing the neural precursor cells in the presence of a first mitogen, wherein said first mitogen is selected from the group consisting of aFGF, bFGF, EGF, TGF $\!\alpha$ and combinations thereof; introducing a c-myc construct [contacting the cells with an agent capable of being taken up by the cells - 3 -

YANG ET AL. -- U.S. PATENT APPLICATION 09/398,897 and capable of expressing a c-myc gene] and a selectable marker into the cells, wherein the c-myc construct is comprised of a c-myc cDNA fused with at least one element selected from the group consisting of DNA for a ligand binding domain for an estrogen receptor, an androgen receptor, a progesterone receptor, a glucocorticoid receptor, a thyroid hormone receptor, a retinoid receptor, and an ecdysone receptor; further culturing the cells in a medium containing d) the first mitogen and a second mitogen, wherein said second mitogen is selected from the group consisting of aFGF, bFGF, EGF, TGF α , serum and combinations thereof, with the proviso that the second mitogen is other than the first mitogen, wherein said medium containing the first mitogen and the second mitogen further comprises a myc-activating chemical selected from the group consisting of β -estradiol, RU38486, dexamethasone, thyroid hormones, retinoids, and ecdysone; and collecting c-myc treated cells and co-culturing them with feeder cells free of the selectable marker and capable of supporting survival of the c-myc treated cells



CLAIMS AFTER AMENDMENT

- 1. (Amended) A method for producing stable cell lines of mammalian neural precursor cells in vitro, comprising the steps of:
- a) preparing a culture of neural precursor cells in a serum-free medium;
- b) culturing the neural precursor cells in the presence of a first mitogen, wherein said first mitogen is selected from the group consisting of aFGF, bFGF, EGF, TGF α and combinations thereof;
- c) introducing a c-myc construct into the cells,
 wherein the c-myc construct is comprised of a c-myc
 cDNA fused with at least one element selected from the
 group consisting of DNA for a ligand binding domain for an
 estrogen receptor, an androgen receptor, a progesterone
 receptor, a glucocorticoid receptor, a thyroid hormone
 receptor, a retinoid receptor, and an ecdysone receptor;
 and
- d) further culturing the cells in a medium containing the first mitogen and a second mitogen,

wherein said second mitogen is selected from the group consisting of aFGF, bFGF, EGF, TGF α , serum and combinations

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thereof, with the proviso that the second mitogen is other than the first mitogen and

wherein said medium containing the first mitogen and the second mitogen further comprises a myc-activating chemical selected from the group consisting of β -estradiol, RU38486, dexamethasone, thyroid hormones, retinoids, and ecdysone.

- 4. The method of claim 1, wherein the mammalian neural precursor cells are derived from a human.
- 5. The method of claim 1, wherein the mammalian neural precursor cells are derived from an *in vitro* culture of pluripotent embryonic stem cells.

12. (Amended) A method for producing stable clonal cell lines of mammalian neural precursor cells in vitro, comprising the steps of:

- a) preparing a culture of neural precursor cells in a serum-free medium;
- b) culturing the neural precursor cells in the presence of a first mitogen, wherein said first mitogen is

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selected from the group consisting of aFGF, bFGF, EGF, TGF α and combinations thereof;

c) introducing a c-myc construct and a selectable marker into the cells,

wherein the c-myc construct is comprised of a c-myc cDNA fused with at least one element selected from the group consisting of DNA for a ligand binding domain for an estrogen receptor, an androgen receptor, a progesterone receptor, a glucocorticold receptor, a thyroid hormone receptor, a retinoid receptor, and an ecdysone receptor;

d) further culturing the cells in a medium containing the first mitogen and a second mitogen, wherein said second mitogen is selected from the group consisting of aFGF, bFGF, EGF, TGF α , serum and combinations thereof, with the proviso that the second mitogen is other than the first mitogen,

wherein said medium containing the first mitogen and the second mitogen further comprises a myc-activating chemical selected from the group consisting of β -estradiol, RU38486, dexamethasone, thyroid hormones, retinoids, and ecdysone; and

and the

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- e) collecting c-myc treated cells and co-culturing them with feeder cells free of the selectable marker and capable of supporting survival of the c-myc treated cells in a medium containing the first mitogen and the second mitogen, with the proviso that the second mitogen is other than the first mitogen.
- 15. The method of claim 12, wherein the mammalian neural precursor cells are derived from a human.
- 16. The method of claim 12, wherein the mammalian neural precursor cells are derived from an *in vitro* culture of pluripotent embryonic stem cells.